

REMARKS

Applicant Entitled to New Rejection

37 CFR 1.104(c)(2) requires that “when a reference is complex or shows or describes inventions other than that claimed by applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained.” MPEP 707(d) requires each ground of rejection to be “fully and clearly stated”. MPEP 707(f) states the examiner “must provide clear explanations of all actions taken by the examiner”.

Applicant contends that the final rejection is improper because violates the provisions of 37 CFR and the MPEP quoted above. In the Examiner’s rejection of claims 1, 21, 42 and 44 under 35 USC 102 as anticipated by Chacon, the Examiner failed to clearly explain what part of Chacon allegedly anticipates the “third field” of the claimed invention.

Specifically, on page 4 of the final rejection, the Examiner describes six different fields in the databases disclosed by Chacon: stn, PM limit, ProcedureId, Route, Routename, and part ID. However, the rejection is unclear because it fails to identify which of these six fields the Examiner contends anticipates the “third field” in Applicant’s claims 1, 21, 42 and 44.

Because the final rejection is improper, **Applicant is entitled to a new rejection, with a newly restarted period for response**, that clearly sets forth the particular part of Chacon the Examiner relies on as allegedly anticipating the “third field” in Applicant’s claims 1, 21, 42 and 44.

Response to 102 Rejection of Independent Claim 1

Independent claim 1 requires storing in a database record:

- (1) a first field identifying a class of equipment; and
- (2) a second field identifying an attribute whose value is outputted by the class of equipment identified by the first field, wherein the attribute is a sensor measurement or operating parameter of said class of equipment identified by said first field.

(Discussion of the third field is deferred until the subsequent section responding to the rejections of claims 1, 21, 42 and 44.)

Chacon fails to disclose a database that stores the second field required by claim 1 because Chacon's databases fail to include any field identifying sensor measurements or operating parameter values outputted by the equipment. Instead, Chacon's databases store "time standards" for estimating the time required to perform each step in a manufacturing process for scheduling purposes. Although Chacon discloses that time standards can be defined as a function of process parameters, Chacon only stores the time standards, not the process parameters, in a database.

Applicant now will respond to the specific portions of Chacon cited by the Examiner in the final rejection. Applicant will demonstrate that none of the cited portions of Chacon discloses storing in a database record the second field defined in claim 1.

In the final rejection, at page 3, second paragraph, and again at page 33, second paragraph, the Examiner cites Chacon (col. 2, L. 66 – col. 3, L. 4) as disclosing that "stored information includes T1 and T2 parameters, lot status, machine tact (time standard), and Kanban worksheets". However, Chacon discloses at col. 3, L. 58–65, that all of the listed items are scheduling parameters that have nothing to do with a sensor measurement or operating parameter of the equipment. For example, "lot status" is merely a status indicator whose possible values are "waiting", "running" or "hold" (col. 32, L. 44–65), so it cannot be considered a sensor measurement or operating parameter of the equipment.

The Examiner contends at page 33, second paragraph, that the "tact" information in the preceding quote from Chacon includes "process parameter such as temperature, pressure, etc. and an equipment parameter such as equipment brand name, model, etc." (Chacon, col. 2, L. 24–29). On page 3 of the final rejection, last paragraph, the Examiner cites the same passage of Chacon (col. 2, L. 24–29) as disclosing "defining time standards *as a function of* process parameters and equipment parameters. For example, *if* a process parameter such as temperature, pressure, etc. and an equipment parameter such as equipment brand name, model, etc. are *entered*, the system creates and suggests the time standard to use".

The cited passage of Chacon fails to suggest that any of the sensor measurements or

equipment operating parameters are stored in a field in a database record, as required by claim 1. Chacon merely states that these parameters, “if ... entered”, are used by the “system” to “define” or “create” time standards (Chacon, col. 2, L. 24–29).

Chacon does not explain the meaning of “entered”, but Chacon definitely lacks any suggestion that “enter” means to store in a field of a database as required by claim 1. Chacon discloses storing “time standards” (tact) in various database fields, but Chacon does *not* disclose storing in any database field the sensor measurements or equipment operating parameters based on which the time standards are defined. Chacon includes numerous tables exhaustively listing the fields of Chacon’s databases, but none of the tables includes temperature, pressure, or any sensor measurement.

Therefore, irrespective of how the sensor measurements, etc. may be “entered”, they are not stored in any of Chacon’s databases. Because Chacon’s temperature, pressure, etc. parameters are not stored in fields of a database record, they cannot be the second field of the database record required by claim 1.

Regarding “an equipment parameter such as equipment brand name, model, etc.”, these parameters arguably could be Applicant’s first field, but they cannot be Applicant’s second field because they clearly are not “a sensor measurement or operating parameter **whose value is outputted** by the equipment”.

Therefore, the portion of Chacon cited by the Examiner on page 3 of the final rejection, last paragraph, fails to disclose a database record having the second field of claim 1. Accordingly, Chacon fails to anticipate claim 1.

Response to 102 Rejection of Independent Claims 1, 21, 42 and 44

Independent claims 1, 21, 42 and 44 require storing in a database record:

- (1) a first field identifying a class of equipment;
- (2) a second field identifying an attribute whose value is outputted by the class of equipment identified by the first field; and
- (3) a third field specifying an ID which the class of equipment identified by the first field

assigns to the attribute value identified by the second field.

The claimed invention is a database method and apparatus for storing the information required to retrieve “attribute” values (sensor measurement or operating parameter values) from a class of equipment (UUT) that is capable of outputting such attribute values. The claimed database does not store the actual values of the sensor measurements or operating parameters. Instead, it stores the *identification* information required for a diagnostic instrument to read such values from the UUT. Specifically, the “second field” in claim 1 indicates what sensor measurement or operating parameter values can be outputted by a given class of equipment (UUT), and the “third field” in claim 1 indicates the respective ID assigned by the equipment (UUT) to each respective sensor measurement or operating parameter.

It must be emphasized that claims 1, 21, 42 and 44 define the following two requirements for the “third field”:

Requirement #1: The third field specifies an ID that has been *assigned by the equipment identified by the first field of that record*. (Claim 1, last paragraph: “third field specifying an ID which the class of *equipment* identified by the first field of *that* record *assigns* to the attribute”.) An ID in the prior art does not disclose the claimed invention if the prior art ID is not assigned by the equipment identified by the first field, but rather is assigned by a database, diagnostics program, or scheduling program that is not within said equipment identified by the first field of that record.

Requirement #2: The third field of the database record specifies “an ID which the ... equipment ... assigns to the attribute identified by the second field of that record” (claim 1, last paragraph). The underlined term in the preceding sentence, “the attribute identified by the second field”, additionally is required to be “an attribute whose value is outputted by the class of equipment identified by the first field of that record” (claim 1, penultimate paragraph). Combining the requirements of the two preceding sentences (i.e., the last two paragraphs of claim 1) yields the requirement that the third field of the database record specifies “an ID which the ... equipment ... assigns to” ... “an attribute [second field] whose value is outputted by the class of equipment identified by the first field of that record”. In other words, the ID specified by the

third field of the database record must be the ID of an attribute whose value is outputted by the equipment specified by the first field of the record.

A field disclosed by the Chacon prior art must fulfill **both** Requirement #1 and Requirement #2 or else that field cannot anticipate the third field of claims 1, 21, 42 and 44. Even if the Examiner disputes Applicant's argument that a given field disclosed by Chacon fulfills one of these requirements, that field still fails to anticipate Applicant's third field if it fails to fulfill the other requirement.

The Examiner rejected claims 1, 21, 42 and 44 under 35 USC 102 as anticipated by Chacon. On page 4 of the final rejection, the Examiner describes several fields in the databases disclosed by Chacon: stn, PM limit, ProcedureId, Route, Routename, and part ID. However, the rejection is unclear because it fails to identify which of these fields the Examiner contends anticipates the third field in Applicant's claims 1, 21, 42 and 44.

To rebut the rejection, Applicant now will discuss each of the Chacon database fields mentioned by the Examiner on page 4 of the rejection and explain why none of them anticipates the "third field" defined in claim 1 or 21.

An anticipation rejection can only be based on an unambiguous disclosure in the prior art. Chacon fails to define most of the fields that he discloses, so their meanings can only be inferred from the context in which Chacon mentions them. Even if the Examiner disputes some of Applicant's interpretations of fields that are not defined by Chacon, the Examiner cannot properly base an anticipation rejection on mere speculation by the Examiner as to the meaning of a field that Chacon fails to clearly define.

Chacon's "stn" field cannot be the third field because it is an equipment ID (col. 17, line 8), not an ID of an attribute whose value is outputted by the equipment, as required by the aforesaid Requirement #2.

Furthermore, Chacon's "stn" field cannot be the third field because Chacon lacks any disclosure that the equipment ID is assigned by the equipment itself rather than by the database software; therefore, Chacon's "stn" field does not comply with the aforesaid Requirement #1.

Chacon does not define "PM limit"; in fact, the term "PM limit" appears only twice in the

entire Chacon disclosure, at col. 30, lines 36 and 38. Chacon's "PM limit" appears to be a fixed value that specifies how many counts (stored in the PM counter) of an equipment operation can accumulate before the equipment must undergo Preventive Maintenance (PM). Consequently, Chacon's "PM limit" cannot be the third field of claim 1 or 21 because it is not an attribute whose value is outputted by the equipment (Requirement #2).

Furthermore, Chacon's "PM limit" field cannot be the third field because Chacon lacks any disclosure that the equipment ID is assigned by the equipment itself rather than by the database software; therefore, Chacon's "PM limit" field does not comply with the aforesaid Requirement #1.

Even if the Examiner disputes Applicant's interpretation of "PM limit", the Examiner cannot base an anticipation rejection on the Examiner's speculation regarding an alternative interpretation. An anticipation rejection can only be based on an unambiguous disclosure in the prior art.

Chacon does not define "ProcedureId", except that it is equated with the terms "Route" and "Routename" at col. 18, lines 22 and 44, and col. 19, line 43. Chacon also fails to define "route". Chacon's "route" appears to be a sequence of manufacturing steps performed by a succession of equipments. A sequence of steps is not an attribute outputted by a manufacturing equipment, as required by the aforesaid Requirement #2. Therefore, Chacon's "ProcedureId", "Route" and "Routename" fields fail to anticipate the third field of claims 1, 21, 42 and 44.

Chacon's "part ID" identifies a specific device (i.e., workpiece) being manufactured by the equipment (col. 18, lines 28–30: "a lot makes a part"). The device being manufactured is not an attribute outputted by a manufacturing equipment, as required by the aforesaid Requirement #2. Therefore, Chacon's "part ID" field fails to anticipate the third field of claims 1, 21, 42 and 44.

In summary, independent claims 1, 21, 42 and 44 are not anticipated by Chacon because Chacon fails to disclose a third field fulfilling all the requirements specified in these claims. Therefore, claims 1, 21, 42 and 44 are patentable.

Dependent claims 2–6, 13, 15, 16, 23–27, 34, 36 and 37 are patentable because they are

dependent on independent claim 1 or 21.

Claims 2–4 and 23–25

Claims 2–4 and 23–25 are dependent on claims 1 and 21 and further recite that the ID stored in the third field *uniquely* specifies an attribute (claims 2 and 23) or *uniquely* specifies a command in response to which the equipment outputs the specified attribute (claims 3, 4, 24 and 25). Chacon lacks any disclosure of an ID that uniquely specifies an attribute outputted by an equipment. The only references in Chacon to *uniqueness* refer to equipment ID's, routing steps/stages, and time schedules (e.g., TACT records), none of which can be considered an attribute outputted by an equipment. Therefore, claims 2–4 and 23–25 are patentable.

Respectfully submitted,

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